

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. (cancelled)

26. (Previously presented) A device for reducing nitrogen oxides in an exhaust stream of a motor vehicle via a catalytic reduction, comprising:

a nitrogen oxide reduction reactor containing a catalyst on which nitrogen oxide reduction of the nitrogen oxides in the exhaust stream is performed via the addition of hydrogen;

a hydrogen generating device arranged on-board said motor vehicle for generating hydrogen, said hydrogen generating device including at least one of a water vapor reformation reactor for water vapor reformation of hydrocarbons and a partial oxidation reactor for partial oxidation of hydrocarbons, said hydrogen generating device being arranged so as not to be in thermal contact with the exhaust stream of the motor vehicle;

an adjustable heating device coupled with at least one of the water vapor reformation reactor for water vapor reformation and the partial oxidation reactor for partial oxidation.

27. (Previously presented) The device according to claim 26, wherein said adjustable heating device is an electrical heater.

28. (Previously presented) The device according to claim 27, wherein the electrical heater is at least one of a resistance heater and a heating cartridge.

29. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said water vapor reformation reactor, and further wherein a catalyst in the water vapor reformation reactor contains one of copper and zinc as active components for water vapor reformation.

30. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said water vapor reformation reactor, and further wherein the water vapor reformation reactor further comprises an evaporator stage for water vapor reformation, said evaporator stage being located upstream from a main reaction stage in which the water vapor reformation on a catalyst occurs.

31. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said water vapor reformation reactor, and further comprising an aftertreatment stage located in said water vapor

reformation reactor for water vapor reformation downstream from a main reaction stage in which the water vapor reformation on a catalyst occurs,

wherein in said aftertreatment stage one of a CO produced by the main reaction stage is reduced by a shift reaction and a hydrogen yield is increased.

32. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said water vapor reformation reactor, and further wherein said water vapor reformation reactor for water vapor reformation is a tube having an inside diameter between 5 to 30 mm.

33. (Previously presented) The device according to claim 31, further comprising an evaporation stage for the water vapor reformation reactor, and means for independently heating said evaporation stage, said main reaction stage, and said aftertreatment stage from one another for water vapor reformation.

34. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said partial oxidation reactor, and further wherein said partial oxidation reactor comprises an evaporator stage for partial oxidation, said evaporator stage being located upstream of a main reaction stage in which partial oxidation on a catalyst occurs.

35. (Previously presented) The device according to claim 34, wherein said adjustable heating device includes an electrical heater for heating said evaporator stage of the partial oxidation reactor.

36. (Previously presented) The device according to claim 26, wherein said hydrogen generating device includes said partial oxidation reactor, and further comprising a feed device with which product gases produced during said partial oxidation on a catalyst are guided against an outer wall of said partial oxidation reactor.

37. (Previously presented) The device according to claim 34, further comprising a feed device with which product gases produced during said partial oxidation on the catalyst are guided against an outer wall of said partial oxidation reactor.

38. (currently amended) The device according to claim 26, wherein said hydrogen generating device includes said partial oxidation reactor, and further comprising an aftertreatment stage provided in said partial oxidation reactor for partial oxidation downstream from a main reaction stage in which said partial oxidation occurs on a catalyst; and

wherein in said aftertreatment stage CO concentration ~~one of a~~
~~produced by the main reaction stage~~ is reduced by a shift reaction and a further
reaction with residual hydrocarbons with water vapor occurs.

39. (currently amended) The device according to claim 34, further
comprising an aftertreatment stage provided in said partial oxidation reactor for
partial oxidation downstream from said main reaction stage in which said partial
oxidation occurs on the catalyst; and

wherein in said aftertreatment stage CO concentration ~~one of a CO~~
~~produced in the main reaction stage~~ is reduced by a shift reaction and a further
reaction with residual hydrocarbons with water vapor occurs.

40. (Previously presented) The device according to claim 26, wherein said
hydrogen generating device includes said partial oxidation reactor, and further
wherein said partial oxidation reactor for partial oxidation is a tube having an
inside diameter of between 5 to 50 millimeters.

41. (Previously presented) The device according to claim 34, wherein said
partial oxidation reactor for partial oxidation is a tube having an inside diameter
of between 5 to 50 millimeters.

42. (Previously presented) The device according to claim 26, wherein said at least one of said partial oxidation reactor for partial oxidation and said water vapor reformation reactor for water vapor reformation is a cylindrical block having a plurality of axial holes, a catalyst thereof being located in at least one of said axial holes and an evaporator stage thereof constituting at least one further of said axial holes.

43. (Previously presented) The device according to claim 42, wherein a heating cartridge is located in a central one of said axial holes in said at least one of said partial oxidation reactor for partial oxidation and said water vapor reformation reactor for water vapor reformation.

44. (Previously presented) The device according to claim 26, wherein said hydrogen generating device is a separate module arranged on-board the motor vehicle.

45. (Previously presented) A device for reducing nitrogen oxides in an exhaust stream of a motor vehicle via a catalytic reduction, comprising:

a nitrogen oxide reduction reactor containing a catalyst on which nitrogen oxide reduction of the nitrogen oxides in the exhaust stream is performed via the addition of hydrogen;

a hydrogen generating device arranged on-board said motor vehicle for generating hydrogen, said hydrogen generating device including at least one of a water vapor reformation reactor for water vapor reformation of hydrocarbons and a partial oxidation reactor for partial oxidation of hydrocarbons, said hydrogen generating device being a separate module arranged so as not to be in thermal contact with the exhaust stream of the motor vehicle;

an adjustable heating device coupled with at least one of the water vapor reformation reactor for water vapor reformation and the partial oxidation reactor for partial oxidation and operating to regulate temperature independently of an operating state of the motor vehicle.